

Q **What is dental decay?**

A Dental decay happens when the enamel and dentine of a tooth become softened by acid attack after you have eaten or drunk anything containing sugars. Over time, the acid makes a cavity (hole) in the tooth. 'Dental decay' is the same as tooth decay and is also known as 'dental caries'.

Q **What causes dental decay?**

A Dental decay is caused by plaque acids that gradually dissolve away the enamel and dentine of the tooth. Decay damages your teeth and may lead to the tooth needing to be filled or even taken out.

Q **What is enamel?**

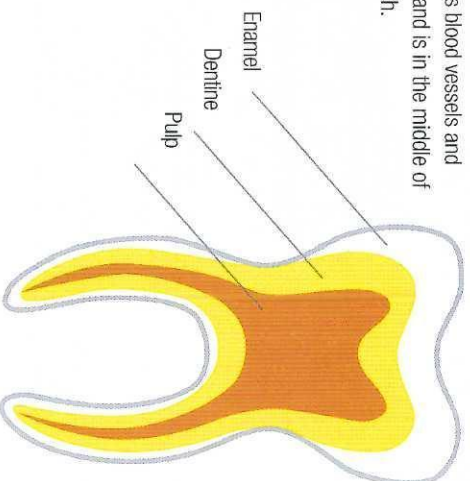
A Enamel is the hard, protective outer coating of the tooth and is the hardest part of the body. It does not contain any nerves or blood vessels and is not sensitive to pain.

Q **What is dentine?**

A Dentine lies under the enamel, forming most of the tooth, and it can be very sensitive to pain. Dentine covers the central 'pulp' of the tooth.

Q **What is the pulp?**

A The pulp is a soft tissue which contains blood vessels and nerves and is in the middle of the tooth.



Q **What is plaque?**

A Plaque is a thin, sticky film that keeps forming on your teeth. It contains many types of bacteria.

Q **Why do my teeth decay?**

A Decay happens when sugars in food and drinks react with the bacteria in plaque, forming acids. Every time you eat or drink anything containing sugars, these acids attack the teeth and start to soften and dissolve the enamel. The attacks can last for an hour after eating or drinking, before the natural salts in your saliva cause the enamel to 'remineralise' and harden again. It's not just sugars that are harmful: other types of carbohydrate foods and drinks react with plaque and form acids. (These are the 'fermentable' carbohydrates: for example 'hidden sugars' in processed food, natural sugars like those in fruit, and cooked starches.) Always check the ingredients. Generally anything with 'ose' in the name is a sugar, for example: sucrose, maltose and so on.

Having sugary or acidic snacks and drinks between meals can increase the risk of decay, because your teeth come under constant attack and do not have time to recover. It is therefore important not to keep having sugary snacks or sipping sugary drinks throughout the day.

Q **What are the signs of dental decay?**

A In the early stages of dental decay there are no symptoms, but your dental team may be able to spot a cavity in its early stages when they examine or x-ray your teeth. This is why you should visit your dental team regularly, as small cavities are much easier to treat than advanced decay.



Early stages of decay

Images courtesy of Dr Rakesh Jivan

Q **What happens if I have a cavity?**

A Once the cavity has reached the dentine your tooth may become sensitive, particularly when you have sweet foods and drinks, and acidic or hot foods.

As the decay gets near the dental pulp you may suffer from toothache. If the toothache is brought on by hot or sweet foods this may last for only a few seconds. As the decay gets closer to the dental pulp the pain may last longer and you may need to take painkillers – paracetamol or ibuprofen – to control the pain. You must visit your dental team straight away as the tooth is dying, and you may develop a dental abscess if it is not treated.

Q **What happens if I don't get it treated early?**

A Toothache is a sign that you should visit your dental team straight away, as it is a warning that something is wrong. If you don't do anything, this will usually make matters worse and you may lose a tooth that could otherwise have been saved.

Q **What areas of my teeth are more likely to decay?**

A The biting surfaces of the teeth and the surfaces between the teeth are most likely to decay, because food and plaque can become stuck in these areas. But any part of the tooth can be at risk.

Q **What treatment will I need?**

A If the decay is not too serious, the dental team will remove all the decay and repair the tooth with a filling. Sometimes the nerve in the middle of the tooth can be damaged. If so, the dentist will need to carry out root canal treatment by removing the nerve and then repairing the tooth with a filling or a crown. If the tooth is so badly decayed that it cannot be repaired, the dentist may have to take the tooth out.

Q **Will I always need a filling?**

A No. In the very early stages of decay, your dental team may apply a fluoride varnish onto the area. This can help stop more decay and help 'remineralise' the tooth. However, it is important to follow the cleaning routine your dental team suggest, using a fluoride toothpaste to prevent decay starting again.

Q Is there anything I can do to protect my teeth against decay?

A As each of the adult molars (back teeth) appears, and if the tooth is free from decay, a 'pit and fissure sealant' can be used to protect the tooth. The sealant is a plastic coating that fills all the little crevices in the tooth surface, creating a flat surface that is easier to clean. Adults can also have this treatment if the teeth are free from decay. Your dental team will discuss whether this is right for you. Children can also have fluoride varnishes painted onto their teeth twice a year which will help to reduce the chances of decay.

Q What can I do to prevent decay?

A The best way to prevent dental decay is by brushing your teeth thoroughly last thing at night and at least one other time during the day, with a fluoride toothpaste. Make sure that you brush the inner, outer and biting surfaces of your teeth. Using 'interdental' brushes, or dental floss or tape, also helps to remove plaque and food from between your teeth and where they meet the gums. These are areas an ordinary toothbrush can't reach.

Q Is there anything else I can do?

A Visit your dental team regularly, as often as they recommend. Have sugary and acidic food and drinks less often. Avoid having snacks between meals, to limit the number of times your teeth are under attack from acids. Chewing sugar-free gum for up to twenty minutes after a meal can help your mouth produce more saliva, which helps to cancel out any acids that have formed.

Q How can my dental team help me prevent decay?

A Your dental team will show you what areas you need to take most care of when cleaning. They will also show you how to brush correctly and clean in between your teeth with 'interdental' brushes or floss.



The Oral Health Foundation is an independent charity dedicated to promoting good oral health.

The Oral Health Foundation promotes three key messages:

- 1** Brush your teeth last thing at night and at least one other time during the day, with a fluoride toothpaste.
- 2** Cut down on how much and how often you have sugary foods and drinks.
- 3** Visit your dentist regularly, as often as they recommend.

The Dental Helpline is a confidential and independent advice service. Call from 9am to 5pm, Monday to Friday, or you can email from our website: www.dentalhealth.org

 **Dental Helpline**
01788 539780
www.dentalhealth.org

Oral Health Foundation
Smile House, 2 East Union Street, Rugby CV22 6AJ
Registered Charity Number 263198

© Oral Health Foundation
Printed 10/19



Dental decay

